

**CLAIMS:**

1. An apparatus for electrical measurement of an alignment of stitched masks, comprising:
  - 5 a first test pad 101 and a second test pad 102 for measuring resistance therebetween;
  - a first resistive element 105,115 electrically connected at a first end to the first test pad 101;
  - a second resistive element 110,125 electrically connected at a first end to
  - 10 the second test pad 102;
  - said first resistive element 105,115 and said second resistive element 110,125 electrically connected by a vertical offset 112;
  - wherein the resistance measured between the first test pad 101 and the second test pad 102 is variable in accordance with an alignment of the first resistive
  - 15 element 105,115 and the second resistive element 110,125 relative to the vertical offset 112.
2. The apparatus according to claim 1, wherein the resistance measured between the first test pad 101 and the second test pad 102 decreases when the first resistive
- 20 element 105,115 and the second resistive element 110,125 are misaligned in a first position.
3. The apparatus according to claim 1, wherein the resistance measured between the first test pad 101 and the second test pad 102 increases when the first resistive
- 25 element 105,115 and the second resistive element 110,125 are misaligned in a second position, opposite to the first position.
4. The apparatus according to claim 1, wherein when the first resistive element and the second resistive element are in substantial alignment, a resistance measurement
- 30 of the resistive elements is approximately equal.

5. The apparatus according to claim 1, wherein the first resistive element and the second resistive element are etched into respective masks that are superimposed to connect to each other.

5 6. The apparatus according to claim 1, wherein a second portion of the first resistive element 105, 115 and a second portion of the second resistive element 110, 125 at least partially overlap each other.

7. The apparatus according to claim 1, further comprising means for displaying  
10 103 a resistance measured between the test pads.

8. The apparatus according to claim 1, further comprising sound means 103 that varies in pitch in accordance with a resistance measured between the pads.

15 9. A method of electrically measuring an alignment of stitched masks, comprising the steps of:

(a) providing a first test pad and a second test pad for measuring resistance therebetween;

(b) electrically connecting a first resistive element to a first end of the  
20 first test pad;

(c) electrically connecting a second resistive element to a first end of the second test pad;

(d) connecting the first resistive element and the second resistive element together to opposite ends of a vertical offset; and

25 (e) measuring a resistance between the first test pad and the second test pad.

10. The method according to claim 9, further comprising:

(f) determining whether the first resistive element and the second  
30 resistive element are in alignment by comparing the measured resistance with a predetermined resistance.

11. The method according to claim 10, wherein an indicator means indicates whether a measured resistance is within a predetermined limit.

12. The method according to claim 11, wherein the indicator means provides a  
5 visual indication.

13. The method according to claim 11, wherein the indicator means provides an audiological indication.